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EXAMINER

LEVY, NEIL S

ART UNIT

PAPER NUMBER

1616

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 672334

Applicant(s) KATAOKA et al

Examiner NEIC Long

Group Art Unit 1616

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☐ Responsive to communication(s) filed on 8/4/03
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-15 is/are pending in the application.
- Of the above claim(s) 6, 7, 14 & 15 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-5, 8-13 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☒ Claim(s) 1-15 are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).
- *Certified copies not received: _____.

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

Applicant's election without traverse of Group I in Paper No. 7 is acknowledged.

Claims 6, 7, 14 and 15 stands withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-5, 8-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Gel-Like is unclear; it would seem at first blush to be contrary to ~~the~~ the molded resin article phase of matter. It is not clear if the claim is to a gel, and if not, in what manner the article is like a gel. Claim 2 is open to multiple interpretations = is there a drug, or is isocyanate the drug? Does the gelled drug constitute the weight basis; or the drug + resin base? It is unclear what is intended by "bulk"; powder and particle are not clearly distinguishable; neither is sheet and film, and a coating as a gelled article in a container is not clearly delineated coatings by definition fail to stand alone, but are on a substrate, nowhere evident in claims 4. Note a 1 missing at claim 8, last line, in front of "day".

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 8, 9, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Neumann et al - 5645845.

Neumann use allylisocyanate sources, garlic oil, (col. 4, line 59) in gel-like tablets or bulk or powdered forms; resin bases of polypropylene are exemplified (col. 7, Example 1).

Neumann provides bulk gelled drugs, insecticides, with adjuvants, stabilizer, with resin bases in molded or cast containers, with openings, or polymer film (col. 1, top 3 paragraphs). The claimed 0.01 – 50% ratio is met, as ~~one~~ can adjust the covering film to desired size (col. 4, lines 25-32) for observation. Permeation is adjusted as desired; 2.3-3.5mg/hr is shown (Table 2)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokuei (EPO 11239603 Abstract), further in view of Fujita et al. (U.S. Pat. NO. 5,928,661) and Fujita et al (U.S. Pat No. 5,880,150).

Tokuei teaches an antibacterial substance vaporizing apparatus having an antibacterial substance such as allyl isothiocyanate. The apparatus consists of a housing body which houses this antibacterial substance. The abstract includes a picture which shows the substance below the top of the housing body. Tokuei however

does not explicitly teach air surrounding the container in a proportion of from 0.01 to 50%.

Fujita et al. teaches a controlled release composition comprising a volatile compound such as allyl isothiocyanate and a rosin. It is taught the composition can be used in combination with various substrates such as polyethylene and polypropylene (col. 5, lines 8-19). The composition may be combined with a substrate to form a coating layer, film, sheet, non-woven fabric (col. 5, lines 19-32). The volatile compound is preferably added in an appropriate amount. For example, when the volatile compound is used for prevention of rot of a packed lunch, a small amount of allyl isothiocyanate is released quickly, in which case the amount is about 0.2 to 20 parts by weight of the volatile compound (col. 6, lines 10-15). The controlled release composition can be used for insecticidal action or insect proof effect (col. 6, lines 22-25).

Fujita et al. teaches an antimicrobial agent containing allyl isothiocyanate for release of allyl isothiocyanate at a certain speed, which is achieved by packaging allyl isothiocyanate. It is taught that for allyl isothiocyanate to be effectively used as an antimicrobial agent, a method is needed which enables free control of the release speed of the allyl isothiocyanate vapor (col. 1, lines 45-50). The packaging material to be used in the invention can be made of a hydrophobic material such as polyethylene or polypropylene (col. 4, lines 44-45). In use, the allyl isothiocyanate vapor permeation rate is not more than 50 mg/cm/day (col. 4, lines 60-64).

Based on the art available at the time the invention was made, one with ordinary skill in the art would have been motivated to utilize a packaging containing allyl isothiocyanate with a hydrophobic material such as polyethylene or polypropylene in a vaporizing apparatus because such a composition would be needed to effectively use allyl isothiocyanate as an antimicrobial agent. One with ordinary skill would have known to use allyl isothiocyanate in an amount of from 0.2 to 20 parts because this is an appropriate amount. Whereas the art does not explicitly teach the contact area between the gelled drug and air surrounding the container in a proportion of from 0.01 to 50%, the art does show an antibacterial substance below the apparatus top (Tokuei). It is the examiner's position that the art makes this limitation obvious.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neil Levy whose telephone number is (703) 308-2412. The examiner can normally be reached on Tuesday through Friday 7 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on (703) 308-2927. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Levy/LR
August 27, 2003



NEIL S. LEVY
PRIMARY EXAMINER